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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,720	08/20/2003	Jeffrey C. Hessenberger	066042-9398-01	6121
23409	7590	04/06/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			SELF, SHELLEY M	
			ART UNIT	PAPER NUMBER
			3725	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,720

Applicant(s)

HESSENBERGER ET AL.

Examiner

Shelley Self

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 41-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 41-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/04, 11/04, 3/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3725

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of the invention of Group I (clms. 1-21, newly presented clms. 41-59) in the reply filed on January 19, 2005 is acknowledged.

Applicant has cancelled claims 22-40.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the *upright and inverted orientations with the shield below and above the air outlet* respectively (clm. 21), the *first and second radial width(s)* (clms. 9, 46,) and the *flexible shield* (clm. 58) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be

Art Unit: 3725

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21 and 56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. With regard to claims 21 and 56 neither the specification nor the drawings provide support for a tool in an upright orientation in which the base is above a work piece and the shield is below the air outlet, and an inverted orientation in which the base is below a work piece nor the shield is above the air outlet. The specification fails to describe in detail both configurations. Clarification is necessary for a clear understanding of the claimed invention. Accordingly art has not been applied to these claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3725

Claims 1- 8, 11-15, 18, 41-46, 49, 50-52, 55, 57 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Hestily (4,051,880). With regard to claims 1-3, 14 and 51 Hestily discloses a power tool/router (10) comprising a base (12), motor (42); a motor housing (36) supporting the motor (fig. 1) and defining an air outlet and an air flow path from the motor housing through the air outlet (fig. 1, 4, 5)) and a shield (88) having radially extending blades (84), the shield removably connected to the motor housing (see fasteners, fig. 1; Examiner notes the shield to be removable) and positionable to at least partially cover the air outlet (fig. 1).

With regard to claims 4, 12, 13, 41, 49 and 50, Hestily discloses the motor housing (36) includes a plurality of housing blades (52) spaced apart from one another to define openings therebetween (Examiner notes fan (i.e, direct air) blades/vanes fig. 1), the openings at least partially defining the air outlet and wherein the shield (88) is positionable to at least partially cover at least one of the openings. Examiner notes that because the shield covers the housing, which encompasses the plurality of housing blades (fig. 6A), inherently the shield partially covers at least one of the blades of the plurality of blades (figs. 1-4).

With regard to claims 5, 8, 42 and 45, Hestily discloses the shield (88) includes a plurality of shield blades (84) spaced apart from one another to define openings therebetween (fig. 4), the shield blades being offset from the housing blades to at least partially cover the openings between the housing blades. Examiner notes the openings of shield (fig. 4) are constructed from blades, i.e. partitions and partially cover the housing blades encompassed within the motor housing (fig. 1, 4, 5).

With regard to claims 6, 7, 43, 44 and 57, Hestily discloses a plurality of housing blades (52; fig. 1) spaced from one another at a first distance to define openings therebetween, the

Art Unit: 3725

openings at least partially defining the air outlet, and wherein the shield (88) includes a plurality of shield blades (84) spaced apart from one another at a second distance to define openings therebetween, the second distance being smaller than the first distance (figs. 1, 4). Examiner notes the openings in the top portion/shield of the router (fig. 4) are at a second distance, which is less than/smaller than the first distance of which the fan blades are spaced (fig. 1).

With regard to claims 9, and 46, Hestily discloses wherein the housing openings (52) having a first radial width measured at a radial distance from a central axis (46) of the motor housing (36) and wherein the shield (88) is connected to the motor housing such that a second radial width is measured between the housing blades (52) and the shield blades (84) at the radial distance, the second radial width being less than the first radial width. Examiner notes the radial width of the shield (88), i.e., second width is less than that of the housing blades/openings (52) see figs. 1, 4 and 5.

With regard to claims 15 and 52, Hestily discloses the plurality of radially extending shield blades (84) are oriented to direct air passing through the air outlet and the openings along a desired path (fig. 1).

With regard to claims 18 and 55, Hestily discloses the shield to be substantially circular (figs. 1, 4, 5).

With regard to claim 59, Hestily discloses a base (12) a handle (30,32) having a grip portion extending along the handle axis, the handle axis being non-parallel to the motor housing axis. Examiner notes that because the handle extends at an angle from the motor housing the handle axis is therefore intersects the motor axis and, i.e., not parallel to the motor axis and the grip portion being that portion touched by an operator.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11, 16, 47, 48 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hestily (4,051,880). With regard to claims 10, 11, 47 and 48, Hestily does not disclose the second radial width to be half of the first or the first radial width to be 0.3 inches and the second to be 0.15 inches. It would have been obvious at the time of the invention to construct Hestily with the second radial distance being about half of the first radial distance, because where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and does not in itself impart patentability. See *In re Aller*, 105 USPQ 233.

Similarly regarding claims 16 and 53, Hestily does not disclose the plurality of radially extending shield blades to have a thickness of about 0.05 inches. Accordingly, it would have been obvious at the time of the invention to one having an ordinary level of skill in the art to construct Hestily with shield blades having a thickness of 0.015 inches, because discovering an optimum value of a result effective variable involves only routine skill in the art and does not in itself impart patentability. See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 17 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hestily (4,051,880) in view of Staebler et al. (6,488,455). With regard to claims 17 and 54, Hestily discloses a motor (42), motor shaft (46), housing (36) and a plurality of blades wherein the

Art Unit: 3725

housing is vertically moveable relative to the base (12) and posts (col. 2, lines 13-21). Hestily does not disclose a bearing support. Staebler teaches in a very similar art a router/power tool having a housing with a plurality of blades defining an opening (26) for directing air flow, a shield (28) having a plurality of blades defining openings with at least partially cover the housing blades (fig. 2) , a motor, shaft operatively coupled to the motor to drive a router/cutting bit (fig. 1), posts (32) upon which the motor housing is vertically reciprocable. Additionally, Staebler teaches the use of bearings/bushings (36) within the housing used in conjunction with the posts to provide additional support to the motor housing during positioning and translation of the housing. Because the references are from a closely related art and deal with a similar problem (i.e., supporting positioning a reciprocable router/tool housing relative to a base) it would have been obvious at the time of the invention to provide Hestily with bearing support/bushings as taught by Staebler to stabilize and provide support to the motor housing.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hestily (4,051,880) in view of McCurry (5,310,296). Hestily does not disclose the shield made of plastic or nylon. It would have been obvious to one having ordinary skill in the art at the time of the invention to construct Hestily's shield of plastic or nylon, because it is well within the general skill of worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Moreover, McCurry teaches in a closely related art a router having handles, a motor, shield/housing (24), and posts upon which the housing is reciprocal. McCurry teaches the use of plastic as material for the shield/housing (Abstract). Because the references are from a closely

Art Unit: 3725

related art, it would have been obvious at the time of the invention to one having an ordinary level of skill in the art to construct Hestily of plastic/nylon for its durability as taught by McCurry.

Allowable Subject Matter

Claim 58 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior reference of record does not teach or fairly suggest a flexible shield as set forth in claim 58.

The prior art reference, Hestily discloses a router/power tool for cutting/grooving/routing a work piece wherein a cutting tool/bit is attached to a chuck of a shaft (46) associated with a motor (42) encased in a housing (36). During operation the motor drives the cutting tool air is brought in via openings (54, 56) and recirculated to collect dust/debris. The dust/debris is forced through openings and eventually out. The prior art of record, Bosten discloses a router having a vertically reciprocal housing, motor, and shaft operably coupled to the motor, and driving a bit/tool element. Bosten also discloses a fan blade within the housing so as to direct air from an inlet to an outlet (i.e., out of the upper most part of the housing). The air leaving the housing via openings in shield. Bosten teaches the openings within the shield to be linearly place. Bosten does not teach any radial displacement of the openings in the shield and also fails to teach any radial correlation between the distance of the fan blades and the openings of the shield.

Art Unit: 3725

Accordingly, Bosten fails to anticipate or render obvious the claimed invention as set forth in claims 9, 14, 46 and 51.

With regard to claim 58, Hestily and Bosten are silent to any flexible shield and instead disclose the adjustment mechanism (38) and (29) respectively.

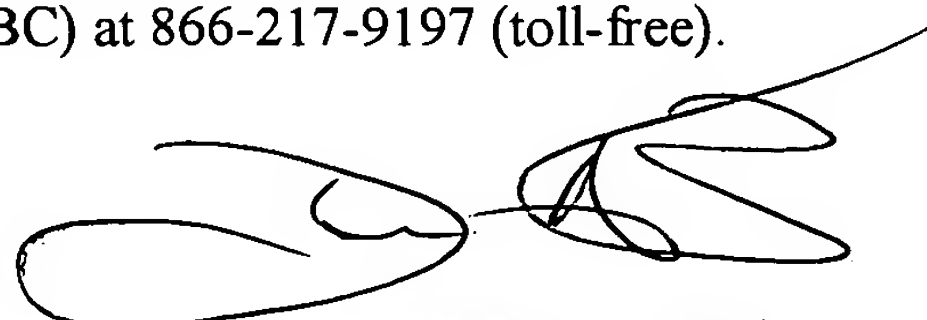
Neither the prior art of record nor any combination thereof discloses or fairly teaches the claimed invention as set forth in claim 58. Accordingly, claim 58 contains allowable subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelley Self whose telephone number is 571-272-4524. The examiner can normally be reached on 8:30 - 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSelf
March 29, 2005



**DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700**